



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,279	12/31/2003	Pak-Lung Seto	P17727	9201

7590 03/22/2007
Grossman, Tucker, Perreault & Pfleger, PLLC
c/o PortfolioIP
P.O. Box 52050
Minneapolis, MN 55402

EXAMINER
SHIN, CHRISTOPHER B

ART UNIT	PAPER NUMBER
2181	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/750,279	SETO, PAK-LUNG	
	Examiner	Art Unit	
	Christopher B. Shin	2181	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In response to the Pre-Appeal Conference Decision of December 19, 2006, the claims 1-21 are rejected as follows.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 5, 13, 15 & 21 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Foster et al. (US 2005/0125574 A1).

- a. The Foster reference teaches the limitations of the claim 1 as follows:

Claims 1, 5, 13, 15, 21

Foster et al. (2005/0125574 A1)

- An apparatus comprising
 - Figure 1A
- A plurality of ports (first/second ports) capable of being coupled to a plurality of devices via an associated plurality of communication links
 - Figure 2, PHY via (106, 116 or connections to PHY), communication between a plurality of connected PHYs
- The links being compliant with Serial Attached Small Computer Systems Interface (SAS) protocol
 - Feature of figures 1A and 2
- Circuitry to provide selectable communication control between at least a first device and at least a second device of said plurality of devices
 - Router Controller (240, 217) that "allocate and remap the route entries in each of the routing tables as desired", see [0020]
- Plurality of devices capable of communicating in accordance with SAS protocol

o Figure 2, PHYs

b. The difference between the claimed invention and the teachings of the Foster reference is that the Foster reference does not expressly or identically disclose the selectable communication circuitry; however, the Forster reference does teach the functionally equivalent Routing Controller (RC). In other words, the claimed "circuitry to provide selectable communication control between as least a first device and at least a second device of said plurality of devices" read on the descriptions of (RC). Therefore, it would have been obvious at the time the invention was made to one having ordinary skill in the art to come up with the claimed invention from the teachings of Foster reference, since the Foster reference teaches all of the equivalent functional limitations.

4. Claims 2-3 & 6-7, 9-12, 16 & 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foster et al. (US 2005/0125574 A1) in view of Zhang et al. (2004/0098503 A1) or Trehus (5,845, 087) or Jo et al (US 2004/0068580 A1).

c. The teachings of claim 1 are similarly applied.

d. As for claims 2-3, 6-7, 9-12, 16, 18-20 are directed to zoning & access restriction; however, such limitations are well known & commonly practiced in the art of communication using with Routing Controller/Table for well-known motivation/benefit of controlled/efficient communication between devices. Since the beneficial teachings of using zoning, as taught in the Zhang, see figure 4 and the accompanying description sections (same assignee as the Foster) or Trehus, figure 2 and the accompanying description section, and Jo reference, figure 10

Art Unit: 2181

and the accompanying description, are well known to Foster reference, at the time of the invention & the Foster, Zhang & Trehus references are all directed to same filed of endeavor (i.e., Router Control); it would have been obvious at the time the invention was made to one having ordinary skill in the art to add such well known zoning feature, as taught by Zhang, Trehus and Jo to the Foster reference for the motivation of efficient/controlled communication.

5. Claim 4 & 8, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foster et al. (US 2005/0125574 A1) in view of Masuda et al. (US 2002/0059432 A1).

e. The teachings of the parent claim 1 are similarly applied.

f. Claim 4 further add limitation regarding bandwidth allocation; however, such limitations are well known & commonly practiced in the art of communication using with Router Controller/Table for well-known motivation/benefit of controlled/efficient communication between devices. Since the beneficial teachings of bandwidth allocation, as taught by Masuda reference are well known to Foster reference, at the time of the invention & the Foster and Masuda references are all directed to same filed of endeavor (i.e., Router Control); it would have been obvious at the time the invention was made to one having ordinary skill in the art to add such well known bandwidth allocation feature to the Foster reference for the motivation of efficient/controlled communication.

6. Claims 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Foster (2005/0125574 A1) in view of Loffink (7,058,749).

Art Unit: 2181

g. The teachings of the parent claim 13 are similarly applied.

h. Claim 14 further add limitation of communications between SAS & SATA.

However, such limitations of communicating between SAS & SATA are well known and commonly utilized in the art of expander, as both disclosed by the Foster & Loffink references; therefore, one skilled in the art can easily add the communication between SAS & SATA technique to the Foster system for the well-known benefit of expansion function.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher B. Shin whose telephone number is 571-272-4159. The examiner can normally be reached on 6:30-5:00 M,Tu,Th,F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on 571-272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

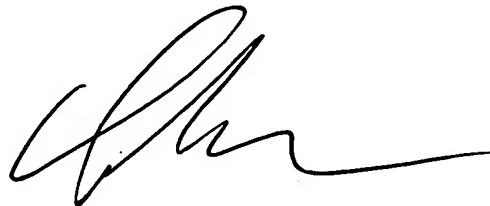
Art Unit: 2181

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CHRISTOHER SHIN
PIRMARY EXAMINER
OF 2181

March 1, 2007

cs

A handwritten signature in black ink, appearing to read 'Christoher Shin', with a long horizontal flourish extending to the right.